U S Fish and Wildlife Service
2524 South Frontage Road, Suite C
Vicksburg, Mississippi 39180

March 22, 1999

Mr. John Meador
U.S. Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39180-3435

Dear Mr. Meador:

I am writing as a follow-up to our February 23 meeting on the Yazoo Backwater Project. My intent is to clarify and elaborate on issues raised during and subsequent to our briefing on the Service's proposed alternative and to identify key issues that need to be addressed in analyzing that alternative as part of your ongoing planning process.

A central point made in our February 23 briefing, and discussed again when we met on February 26 and on March 18, is that the Service does not view the the Corps' December 9, 1998, plan as being "a combined structural/non-structural plan." Instead we view the Corps plan as a structural plan with various environmental features added. In that a consensus seems to be emerging that any acceptable plan will require viable non-structural features, it is critical that our respective views on what constitutes non-structural flood control be clearly understood.

The FWS position is that an alternative is not a "combined structural/non-structural plan" until a non-structural feature exists as a "separable element" as defined in Section 103 (f) of the WRDA of 1986. According to ER 1105-2-100, "Section 103(f) of the WRDA of 1986 defines 'separable element' as a portion of a project which is physically separable from other portions of the project: and, which achieves hydrologic effects, or produces physical or economic benefits, which are separately identifiable from those produced by other portions of the project." The December 9, 1998, Corps plan does not meet this standard. Recognizing that the purpose of the project is flood damage reduction, the Corps plan contains only one separable flood damage reduction feature--a 14,000 cfs pumping plant. Associated with this structural feature are measures designed to avoid and compensate for adverse environmental impacts and measures appropriately described by the Corps and the local sponsor as environmental enhancements.

The "avoidance measure" is the operational feature that calls for the pumps to be turned on only when an 85-foot stage is reached at the Steele Bayou Control Structure. The Corps plan presumes that all affected agricultural landowners will opt for reforestation easements (based on a Service analysis of a flat-line 85 foot elevation, there are 8,279 acres of private

agricultural land available for reforestation below 85 feet) and that as a consequence, no agricultural flood damages would occur below 85 feet (0.7-year-event). The Service does not view this as a separable non-structural flood damage reduction feature, but rather as an operational feature that serves to restrict the limits of structural flood control and avoid impacts that would otherwise occur. The area below 85 feet would simply function as a sump storage area for a 14,000 cfs pumping plant - the project's only separable, flood damage reduction feature.

Assuming the 8,279 acres available for reforestation below 85 feet are in fact reforested, the remainder of the 40,100 acres proposed for reforestation (31,821acres) would, by definition, be occurring in areas targeted for structural flood control. It is our understanding that this 40,100 acres is essentially all cleared land within the one-year frequency event *below Highway 14* (a sloped 87 feet). Any reforested area above 85 feet would be interspersed with lands accruing agricultural drainage benefits and as such this "patchwork" reforestation would not meet the "separable element" test in terms of either hydrologic effects or physical or economic benefits. The pumping plant would be operating to reduce the extent, frequency, and duration of flooding on the reforested areas just as if they were agricultural sites. Accordingly, the reforestation would simply serve as compensation and enhancement in the context of the Fish and Wildlife Coordination Act, NEPA, and other federal mitigation policies.

The challenge before us is one of identifying a non-structural feature that meets the "separable element" test and determining whether it can be implemented within existing authorities. The Service believes that the approach laid out in our February 23 briefing meets the separable element test in that it calls for a flood storage area to be "designated" as a matter of policy or project purpose; a suite of easements designed to raise the damage-free elevation within the flood storage area; and policy changes that would eliminate federal disaster and crop insurance payments within the flood storage area. These three features in combination would result in the designated flood storage area being "dedicated" to that purpose. By implementing a suite of easements that raise the damage-free elevation within a spatially explicit zone defined on the basis of hydrologic parameters (the 329,137-acre area inundated by the 2-year frequency event), a separable project feature is created--one "which achieves hydrologic effects, or produces physical or economic benefits, which are separately identifiable from those produced by other portions of the project." A key point is that these "separately identifiable" effects are not simply environmental amenities; rather they constitute flood damage reduction benefits achieved through non-structural means.

It is appropriate here to clarify the distinction we draw between "designated" and "dedicated". We believe that an area would be "designated" for natural storage when the Corps plan for flood damage reduction states that as a matter of policy, project purpose, and project operation that the area in question is targeted for non-structural flood relief only and that no action will be taken to alter the reach and flow of waters in, over, upon, or through the designated area. As a practical manner, we believe the designation should be spatially explicit and based on hydologic parameters such that the flood storage area can be clearly characterized in terms of frequency, extent, and duration of flooding. We believe an area is "dedicated" when easements are acquired for the purpose and intent of raising the damage-free elevation within the area designated for flood storage **and** when federal disaster relief

policies are modified to reflect that the area in question is intended to function as a natural flood storage area. Whereas "designation" is a statement of policy, purpose, and intent, "dedication" involves proactive measures designed to non-structurally reduce existing flood damages and avoid future flood damages. When these measures occur in tandem, designation and dedication, non-structural flood control exists as a separable element.

The question then becomes what are the authorities of the Corps of Engineers in terms of designating a flood storage area and acquiring easements to raise the damage-free elevation? Clearly the Corps has the authority to prescribe the limits of structural flood control, e.g. no pumping below 85 feet, but does the Corps have a corollary authority to designate an area for flood storage as either a matter of policy or project purpose? Likewise, does the Corps have the authority to acquire easements for the purpose of raising the damage-free elevation? We assume the Corps has no authority to alter the terms and conditions of national disaster relief programs. We do believe, however, that the Corps has the responsibility to make such recommendations and coordinate with the administering agencies with the intent of achieving consistency between flood damage reduction programs and disaster relief programs.

In our most recent discussions, District personnel felt that only the area below the flat-line pumping elevation should be a natural flood storage area and that the Service was being inconsistent in saying that reforestation above the Corps 85-foot pumping elevation did not constitute non-structural flood control while reforestation above the 91-foot pumping elevation associated with the Service proposal did. The Service alternative is predicated on the position that the two-year event should be a dedicated natural flood storage area. If the Corps' evaluation of economic benefits were based on flat-line stage area relationships (as was the case during the 1982 reevaluation), we would be inclined to agree that only the area below the flat-line pumping elevation should be dedicated to natural flood storage. However, that is not the case. Project benefits are currently being computed based on sloped stage/area relationships. Thus, all of the sloped two-year event is within the zone of project impacts as defined by the Corps and we believe should be included in a natural flood storage area.

As to inconsistencies, the two plans are not directly comparable in that the Service plan calls for a dedicated flood storage area and the Corps plan does not. The two plans would be consistent in scope (although not extent) if the Corps plan called for the one-year event to be a dedicated natual flood storage area with pumping commencing at 87 feet. Under this scenario, the Corps plan would have a separable, non-structural feature. We acknowledge that under the Service approach, that portion of the two-year event lying above a flat-line 91 feet N.G.V.D. would be affected by pump operation. However, significant portions of this area would remain within the two-year event and should be targeted for non-structural flood damage reduction.

We also had extensive discussions on the suite of easements that would be employed in raising the damage-free elevation within a designated flood storage area. We are inclined to agree with the Corps recommendation that a flood storage easement that allows continued cropping should not be included in the suite of easements. While such an easement would relieve the federal government of any responsibility for agricultural flood damages occurring

within the flood storage area, damages would nonetheless continue to occur. Instead, two easements would be offered, a “cleared land restoration easement” and a “woodland flood storage easement” as described in our February 23 briefing. As to the provisions common to either easement, e.g. prohibitions against construction and maintenance of dwellings and structures, it is our understanding that your staff will provide specific easement provisions for further coordination. We reserve the right to reconsider this position based on input from flood control/drainage and environmental interests as may be received during further coordination.

During our March 18 meeting, time prevented discussion of one other important point, that being Corps authority to make payments in lieu of taxes on easement areas. In keeping with a goal of economic and ecological sustainability, we believe this is a critical feature of any recommended plan.

I am providing below, a Service response to other questions identified but not discussed during our March 18 coordination meeting.

Why does the Service consider there is high risk and uncertainty of reforesting 40,100 acres from willing sellers given the Service’s high projected participation (83,181 acres) in the voluntary WRP program?

It is as simple as future-with and without project conditions. Under the future-with project scenerio, the reforestation of 40,100 acres of frequently flooded cleared land is uncertain because it is based on the premise that there will be willing sellers within the area benefitted by the pumps. Under the future-without project scenerio, we expect current restoration trends to continue.

What is the basis for the statement “88% of Corps’ proposed reforestation acreage would be benefited by the pumps”?

We incorrectly stated that 88% of the Corps’ proposed reforestation would be benefitted by the pump. The correct figure is 79.4%. The Service used USGS digital elevation models and Corps’ land use data to determine that there are 64,925 acres of land below an 85-foot flat line event. If permanent water bodies are deleted, then there are 53,596 acres of land; if existing forested land is deleted, then there are 21,677 acres of land; if conservation lands are deleted, then there are only 8,279 acres of cleared, privately owned land available for reforestation at or below 85 feet elevation. 40,100 - 8,279 = 31,821 or 79.4% of the proposed reforestation will be located above the 85-foot pump elevation and would receive flood damage reduction benefits.

What is the concern over reduced jurisdictional wetland acreage?

The Corps has acknowledged that FSA and CWA farmed wetland jurisdicitional acreage would be reduced. The Service agrees with this assessment. We think there are wooded

wetlands that, under the with project scenerio, will no longer be inundated and may or may not meet the saturation criteria. These marginal or fringe wetlands may not be jurisdictional (i.e., have less than 13 days saturation during the growing season) and could be subject to conversion without CWA authorization.

A related issue is the loss of inundation hydrology which is of concern, especially for aquatic species dependent on this type of habitat.

Will the lower 2-year, with-project flood elevation, adversely impact landowners within the current 2-year frequency flood zone by triggering provisions of the Food Security Act?

The FSA letter you refer to correctly interprets the regulation that the levee board's action will not be a third party conversion. However, it is the Service's opinion that swamp buster provisions will be triggered because the regulation further explains that conversion of wetlands completed by a drainage district or similar entity **will** be attributable to the individual land owner assessed taxes by the entity. An individual's program benefits will be lost on all lands when a commodity crop is planted, or hay or forage crop is harvested by mechanical means on the converted area. Furthermore, we believe this issue needs written clarification from both FSA and NRCS at the National level.

Future without project WRP/CRP acreages will have to be established and documented as to location before alternate scenerio analyses can be conducted.

The Service agrees. A Planning Aid Report detailing FWOP conditions will be provided within the next two weeks.

If you have any questions or comments concerning issues express in this planning aid letter, please call me at (601) 629-6600.

Sincerely,

Charles K. Baxter
Team Leader Yazoo Pump Project

Copies Furnished:

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